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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,772	09/19/2003	C. David Young	02CR146/KE	9426

7590 12/13/2006
ROCKWELL COLLINS, INC.
Attention: Kyle Eppele
M/S 124-323
400 Collins Rd. NE
Cedar Rapids, IA 52498

EXAMINER

KARIKARI, KWASI

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/666,772		YOUNG, C. DAVID	
	Examiner		Art Unit	
	Kwasi Karikari		2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>09/19/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 09/19 2003 is in compliance with the provision of 37 CFR 1.97, has been considered by the Examiner, and made of record in the application file.

Drawings (Prior art)

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated (subject matter related to Fig. 1 was discussed under the description of related art in applicants specification). See MPEP § 608.02(g).
Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under U.S.C. 103(a) as being unpatentable over Cain et al. (U.S 20030198206 A1), (hereafter Cain) in view of Billhartz (U.S 20040203820 A1), (hereinafter Billhartz).

Regarding **claims 1, 8 and 16**, Cain discloses a communications system/ method/ transceiver (see Fig. 1), comprising:

a plurality of transceiver nodes (mobile nodes 12a-12h, see Fig. 1) configured to utilize a time division multiple access structure to communicate between the transceiver nodes, each transceiver node generating congestion metric information (= interference) based on the utilization of a link to each of its neighbors (see Pars. [0029-30 and 0038-42]); and

the time division multiple access structure including a plurality of time slots during which the transceiver nodes are configured to communicate data cells (see Pars. [0057-59]), the data cells being transmitted from a transmission queue, the data cells including the congestion metric information (see Pars. [0028, 0042 and 0077]); but fails to teach routing information.

However, Billhartz teaches routing information (see Par. [0074]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Billhartz with the system of Cain for the benefit of achieving an ad hoc system that shares connectivity data (see Billhartz, Par. [0011]).

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Regarding **claims 2 and 14**, as recited in claims 1 and 8, Cain further discloses the communication system, wherein the congestion metric information is generated by a channel access subsystem (see Pars. [0033-37 and 0040-42]).

Regarding **claim 3**, as recited in claim 1, Cain further discloses the communication system, wherein the congestion metric information is based on cell counts transmitted in unicast and broadcast allocated slots (see Pars. [0047, 0054, and 0058-59]).

Regarding **claim 4**, as recited in claim 3, Cain further discloses the communication system, wherein the cell counts are compared against the total capacity of each link (see Pars. [0025 and 0028]).

Regarding **claim 5**, as recited in claim 1, Cain further discloses the communication system, wherein the congestion metric information is based on the fullness of priority queues (see Pars. [071-73]).

Regarding **claim 6**, as recited in claim 1, Cain fails to discloses the communication system, wherein the congestion metric information is based on the availability of digital signal processor (dsp) buffers.

However, Billhartz teacher, where congestion metric information is based on the availability of digital signal processor (dsp) buffers (see Pars. [0071-73]).

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It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Billhartz with the system of Cain for the benefit of achieving an ad hoc system that shares connectivity data (see Billhartz, Par. [0011]).

Regarding **claim 7**, as recited in claim 1, Cain fails to disclose the communication system wherein the congestion metric information is based on the availability of unallocated slots.

However, Billhartz teaches, system wherein the congestion metric information is based on the availability of unallocated slots (see Par. [0070]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Billhartz with the system of Cain for the benefit of achieving an ad hoc system that shares connectivity data (see Billhartz, Par. [0011]).

Regarding **claims 9 and 17**, as recited in claims 8 and 16, Cain further discloses the communication system/tranceiver, wherein the congestion metric information is provided as one of a predetermined number of states (see Pars. 0083 and 0089-90).

Regarding **claims 10 and 18**, as recited in claims 9 and 17, Cain further discloses the communication system/tranceiver, wherein the predetermined number of states is four (4) (see Pars. 0083 and 0089-90).

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Regarding **claim 11 and 19**, as recited in claims 8 and 16, Cain fails to disclose the communication system/transceiver, wherein a route management subsystem disseminates the congestion metric information.

However, Billhartz teaches the communication system/transceiver, wherein a route management subsystem disseminates the congestion metric information (see Par. [0074]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Billhartz with the system of Cain for the benefit of achieving an ad hoc system that shares connectivity data (see Billhartz, Par. [0011]).

Regarding **claim 12 and 20**, as recited in claims 8 and 16, Cain fails to disclose the communication system/transceiver, wherein a route management subsystem, wherein a flow control subsystem of a second node may utilize the congestion metric information when received by the second node.

However, Billhartz teaches wherein a route management subsystem, wherein a flow control subsystem of a second node may utilize the congestion metric information when received by the second node (see Par. [0078]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Billhartz with the system of Cain for the benefit of achieving an ad hoc system that shares connectivity data (see Billhartz, Par. [0011]).

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Regarding **claim 13 and 21**, as recited in claims 8 and 16, Cain fails to disclose the communication system/transceiver, wherein a route management subsystem, wherein the congestion metric information and routing information is transmitted by a route management subsystem.

However, Billhartz teaches wherein a route management subsystem, wherein the congestion metric information and routing information is transmitted by a route management subsystem (see Pars. [0073-74]).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Billhartz with the system of Cain for the benefit of achieving an ad hoc system that shares connectivity data (see Billhartz, Par. [0011]).

Regarding **claims 15 and 22**, as recited in claims 8 and 16, Cain further discloses the communication system/transceiver, wherein the transmission system is a time division multiple access (TDMA) system (see Pars. [Pars. [0004 and 0010]).

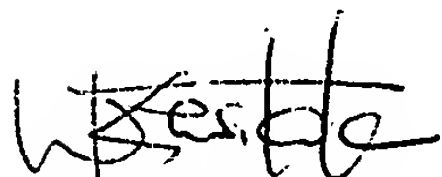
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8566.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kwasi Karikari
Patent Examiner.


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER